

CLAIMS

1. A bone cement deflector for use with a cannulated shaped component placed in a bone canal having an open end with a guide wire, comprising:

a sheath having a shape generally conforming to the shape of a portion of the cannulated shaped component located within the bone canal, said sheath having a first open end to receive the component and a second end with an opening for slidably sealingly engaging the guide wire during placement of said sheath in the canal over the guide wire.

2. The bone cement deflector as set forth in claim 1 wherein the sheath is made from polymethylmethacrylate.

3. The bone cement deflector as set forth in claim 1 wherein the end of said sheath having an opening for slidably receiving said guide wire is in the form of a substantially circular tube.

4. The bone cement deflector as set forth in claim 3 wherein the substantially circular tube has a diameter which is slightly less than the diameter of said guide wire.

5. The bone cement deflector as set forth in claim 3 wherein said first open end of said sheath is at or adjacent the opening in the bone canal after said component is implanted.

6. The bone cement deflector as set forth in claim 1 wherein the overall dimensions of the sheath extend from a first end of said component to a position adjacent a second end of said component.

7. The bone cement deflector as set forth in claim 6 wherein said component is a trial hip stem.

8. The bone cement deflector as set forth in claim 1 wherein said first open end of said sheath is at or adjacent the opening in the bone canal after said component is implanted.

9. A method for implanting a prosthesis in a medullary canal of a long bone comprising:

placing a guide wire in the canal;

placing bone cement in the canal;

placing a first bone cement deflector having a cavity into the canal by slidably engaging the guide wire; and

placing a prosthetic component to be implanted in the canal on the guide wire and into the cavity, the component being cannulated to receive the guide wire, the bone cement deflector having a shape generally conforming to a portion of an outer shape of the component, the deflector having an end with an opening for slidably sealingly engaging the guide wire

10. The method as set forth in claim 9 wherein the component is a trial hip prosthesis.

11. The method as set forth in claim 10 further comprising removing the trial prosthesis and then placing a cannulated prosthetic hip implant on the guide wire and within the cavity of said first cement deflector.

12. The method as set forth in claim 11 further comprising placing a second cement deflector on said guide wire prior to placing said cannulated prosthetic hip implant thereon.

13. The method as set forth in claim 10 further comprising removing said trial component and said guide wire and placing a non-cannulated prosthetic hip implant in said first cement deflector.

14. A prosthetic implant cement deflector for use in prosthetic surgery when employing a cannulated prosthesis or a cannulated phantom prosthesis in combination with a cannulated or uncannulated surgical prosthesis in which each cannulated phantom prosthesis or cannulated prosthesis has an insert portion for location in the bone and a cannulation bore extending through said insert portion to receive a guide wire, comprising:

a cement deflector element adapted to slide in sealing engagement on the guide wire and which can act to seal the interface between the guide wire and the surface of the distal end of the cannulation bore in the prosthesis and has a preformed unperforated sheath adapted to extend over the insert portion of a prosthesis from its distal end to a position at or adjacent to its proximal end.

15. The prosthetic implant cement deflector as claimed in claim 14 made from synthetic plastics material.

16. The prosthetic implant cement deflector as claimed in claim 15 in which the synthetic plastics material is polymethylmethacrylate (PMMA).

17. The prosthetic implant cement deflector as claimed in claim 14 wherein X-ray markers are incorporated in the cement deflector element.

18. The prosthetic implant cement deflector as claimed in claim 17 wherein the X-ray markers are in the form of spherical tantalum beads.

19. A kit of components to carry out the implantation of a prosthetic implant comprising a cannulated phantom prosthesis having an insert portion for location in a bone, a cannulation bore extending through said insert portion, a guide wire for sliding location in said cannulation bore, and a first cement deflector element adapted for sliding engagement on said guide wire, said deflector acting to seal the interface between the guide wire and the distal end of the cannulation bore, said deflector being a preformed unperforated sheath which extends over the insert portion of said prosthesis from its distal end to a position at or adjacent to its proximal end.

20. The kit of components as claimed in claim 19 further comprising an uncannulated prosthesis having an insert portion which is shaped and dimensioned to fit into said sheath together with a layer of cement to replace said cannulated phantom prosthesis and said guide wire and

further including a centralizer with a void to allow the prosthesis to sink further.

21. The kit of components as claimed in claim 19 further comprising a cannulated prosthesis having an insert portion and a cannulation bore and having a second cement deflector and which, on removal of said cannulated phantom prosthesis from said sheath is adapted to replace it on said guide wire, said second cement deflector slidably engaging said guide wire and sealing the interface between the guide wire and the distal end of the cannulation bore in said prosthesis, and said insert portion thereon being shaped and dimensioned to fit into said sheath of said first cement deflector together with a layer of cement.

22. The kit of components as claimed in claim 21 wherein said cement deflector can be adapted to be secured to the distal end portion of the cannulated prosthesis.

23. The kit of components as claimed in claim 22 wherein said cement deflector extends over at least part of the distal end of the cannulated prosthesis.